

ourselves experience. This should be encouraged, and though there be no pasture, cows should be allowed a daily run, without stinting them in their dry food. The transition from hay to grass should be gradual, and they will thus escape the enervating influences of a too sudden change of diet.

C. E. W.

Cheese Factories

We have repeatedly received letters of enquiry respecting the details of a cheese factory, from parties contemplating the starting of such an undertaking. We have in former issues given the information asked for, and would refer our correspondent to an article on the subject, having special reference to small factories, in the December number of the CANADA FARMER. We now publish, as the best answer we can give to such correspondents, a communication from Mr. Willard, furnished by him to the Royal Agricultural Society of England, and which concisely covers the whole ground:—

“There are very few factories where the milk is purchased by, and the business carried on wholly under control, of one or more proprietors, thus making it a separate and distinct interest from that of patrons.

“The popular method of organizing factories, and one which seems to give good satisfaction, is to make them joint stock concerns. The ground is selected and an estimate made of buildings, machinery, and fixtures. The whole cost is then divided up into shares of fifty to one hundred dollars each, and the neighbouring farmers, or those favourable to the movement, take stock in proportion to the number of cows from which they are to deliver milk. Officers are chosen and the company managed as a joint stock company. Usually a committee, or some one person selected from the patrons, is chosen as salesman of the cheese. His duty it is to make sales at best prices to be had, arrange dividends, and pay over shares to patrons, deducting of course the price per pound for manufacturing, which is made to cover all expenses, including the per centage on cost of buildings and fixtures.

“A good cheesemaker is employed as manager and manufacturer at a certain price per pound of the cheese manufactured. This manager employs his labourers or assistants, and pays all expense of running the factory, taking care of cheese, keeping record of milk delivered daily by different patrons, entering the same on the books of the factory and upon the passbooks of patrons. Often the company employ the manufacturer and all the hands at fixed salaries.

“The milk is weighed at the factory when delivered, and as experience has shown that every ten pounds of milk (as an average for the season) should make one pound of cured cheese, firm, solid, and in good marketable condition, each farmer thus has a

daily record in his passbook of what his herd is yielding.

“The manager is employed with the understanding that he is to make a good, fair article, and his product is examined from time to time by committees, by experts, and by patrons, as they see fit, and thus bad work is soon detected. If the management is not satisfactory the cheesemaker is discharged or the causes of the bad work traced out and rectified.

“The stockholders and those delivering milk meet from time to time and deliberate as to sales, each one voting according to the number of cows from which he delivers milk, and in this way instructions are issued to the salesman.

“Then there is another method of establishing factories. One man, or a company, erects buildings and is to all expense in running the factory, charging by the pound of cured cheese for manufacturing. The cheese in this instance, it will be seen, belongs to patrons, who appoint a salesman and control the product precisely as under the other method.

“It will be observed that under this system of checks all men who deliver milk are upon an equal footing, where no advantage can be taken, for the farmer, if he chooses, can weigh his milk at home and compare it with the figures entered at the factory upon his pass-book. The company is responsible for milk delivered. The account is payable in cheese, this part of the system being somewhat like that in making deposits at bank.

“1. *Number of cows (average).*—The number of cows varies greatly, from 300 to 1,500 or more. Our experience shows that a factory with less than 300 cows will not pay expenses, including interest on capital invested in factory, fixtures, &c., unless an extra rate be charged for manufacturing. Extremely large factories, say of 1,500 cows, do not give the best return to farmers. There is usually more waste; the milk coming from a long distance is often in a bad condition, and the work at the factory is, from time to time, hurried and slighted. The best results are obtained, both as to quality and quantity of product, where the factory uses the milk of from 500 to 800 cows, and not above 1000.

“2. *Size of buildings.*—Improvements are constantly making in buildings. The early factories were made rude and imperfect structures. The late erections are more substantially built, but very plain in style, with no pretensions to architectural beauty. This is a mistake. A competent architect should be employed, who should give designs for a handsome exterior, imposing, graceful and pleasing to the eye. The cost would not be very much more, but the value of such buildings would be greatly enhanced, and could be turned to good account in case they were abandoned for cheese making.

“In some of our establishments the manufacturing department and curing rooms are under one roof—in others they are separated. The system of marketing cheese in America is somewhat different from that in England. The cheese is not held for so great a length of time while curing. We try to send our cheese to market when it is from thirty to sixty days old. There are few curing rooms built with the design of holding cheese for the entire season.

“Without attempting to give model buildings, or those considered by some as the best, it will perhaps suffice to present two or three plans of those esteemed as among the first-class.

“The Fairfield and the Willow Grove factories send out cheese favourably known in the English markets. They have for several years received ‘top prices’ from English shippers.

“The Fairfield factory is located in Herkimer Co., N. Y., eight miles from Little Falls, the largest country cheese market in America. It receives the milk of 1,000 cows. The manufacturing department and curing-rooms (‘dry house’) are under one roof. The establishment is one hundred and forty-eight feet long by thirty-eight feet wide, and three stories high. The second and third stories are for curing-rooms. The manufacturing room is forty by twenty-eight feet; press room, thirty-five by thirty-one feet. The boiler, five-horse power, stands in a separate room, and cost four hundred and fifty dollars. The manufacturing room is provided with double vats for cheese making. These vats are each sixteen feet long, three feet four inches wide and eighteen inches deep, holding six hundred gallons.

“We may remark here that vats of this size and proportion are convenient for work, and are usually adopted at the factories. They are double—that is, the inner one of tin setting in a wooden vat, with spaces between the two at the sides and bottom where the heat is applied, either steam or hot water.

“The Willow Grove factory is in Oneida county. The dry house sets upon high stone piers, and is one hundred by thirty feet, two stories. The manufacturing department is in a separate building, being thirty by twenty-eight feet, with press room twenty-six by fourteen feet. The factory has capacity for the milk of 1,000 cows.

“Wight’s Whitesboro factory, in Oneida county, has also a high reputation in the English markets. It was erected for six hundred cows. Dry house one hundred and four by thirty feet, two stories. Directly opposite stands the manufacturing department, which is twenty-six by fifty feet.

“3. *Cost of Buildings.*—This, of course, varies in different localities, and must be regulated according to taste in architecture, cost of material, labour, &c., &c. Factories in the State of New York cost from \$3,000 to \$10,000.